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Motivation and reward systems in service provision: *exploring motivators for people providing engineering services*

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Abstract

It is becoming a distinctive feature for manufacturing firms to compete strategically through service provision. In relation to reward systems the aim of this thesis is to investigate what motivates employees of servitized manufacturing firms when providing engineering services and why. Through quantitative and qualitative data collection with an international company within the European healthcare sector, the findings show that key motivating factors were to “delight” the customer and being able to take responsibility and accountability for ones work. Service employees were found to feel proud of providing a high-quality service and experienced their work as fulfilling and worthwhile.

Keywords: Motivation, Product-Service Systems, service provision, case study

Introduction

Many manufacturing companies are increasingly providing services with their products (Baines et al. 2013). They extend their responsibility beyond production to the use-phase of their equipment, and product-service business models are accepted as essential to industrial success in the 21st century (EC 2014). As an example, Rolls-Royce Plc earns up to 70% of their revenue from services (Rolls-Royce 2014).

One of the challenges in service provision is to manage the service personnel as this is of core importance to delivering service quality (Hawkins et al. 2015). There are many factors and unmeasurable elements which make it more difficult to successfully measure and reward positive behavior (Kreye & Jensen 2014). In contrast, success in product sales can be easily measured through, for example, the number of products sold.

Servitized manufacturers have many contact points with their customers which place particular demands on the people working within this field, and the success is highly related to the behavior of these people (Lewis & Brown 2012). Staff motivation and job satisfaction are important influences in this area as they improve organizational performance and competitiveness, impact attempt to reduce costs, employee commitment and ultimately customer satisfaction and perceived service quality (Grandey et al. 2011). Since the success criteria differ for product and service providers

thus the reward system has to reflect this and servitized manufacturers need to extend their traditional understanding of staff motivation and incentives.

This paper aims at investigating the factors that motivate service employees in servitized manufacturing firms. By presenting case-based evidence, we identify the importance of intrinsic motivation of the service staff to deliver high-quality service support. This is accelerated by customer feedback and knowledge sharing between colleagues. This paper contributes to the discussions in the servitization literature by extending our understanding of staff motivation in the context of PSS provision.

Theoretical background

Reward systems are increasingly important because in an economy that is more and more based on service and knowledge as employees have become the most important determinant of organizational success (Armstrong 2012). Pfeffer (1998) argues that by treating employees as the most valuable resource, organizations can get sustainable competitive advantages. Van der Stede (2009) concludes that it is important to align employee and organizational goals because of the potential positive effects and to mitigate the negative effects of non-alignment.

One of the challenges for the reward systems is to align the goals of the employee with the goals of the organization (Armstrong 2012). This is highly important because if the reward system is properly designed, it can be a key contributor to the effectiveness of the organization. Research shows that having motivated and engaged employees leads to a range of organizational benefits like higher productivity and lower staff turnover (Bendoly & Prietula 2008).

Reward systems are typically aimed at encouraging and incentivizing staff motivation (Galbraith 1977). As such, employee motivation is at the center of many investigations into the issue. Particularly in the context of service provision, staff motivation plays a crucial role. As such, a positive link has been found between staff motivation and customer satisfaction (Johnson 1996). Thus, this research focuses on the motivation of service staff in the context of servitization.

Motivation factors can be divided according to the source of motivation and the level of its manifestation (Armstrong 2012). As such, motivation can be either intrinsic or extrinsic and individual or collective. This results in a matrix of the possible combination of motivation factors which is depicted in Table 1.

Intrinsic motivation *“energizes and sustains activities through the spontaneous satisfactions inherent in volitional action”* (Deci et al. 1999, p.658) and can be conceptualised as an *“individual’s excitement about their work activities and their interest in completing these activities”* (Coelho & Augusto 2010, p.426). Especially in the context of service provision, intrinsic motivation has been highlighted as a main factor to staff motivation (Hackman & Oldham 1976). Intrinsic motivation can be linked to the work environment especially the quality of working life, and organisational values.

Extrinsic motivation can arise from appreciation and recognition of the individual’s contribution to organisational goals in the form of both financial and non-financial rewards (Cordero et al. 2005). Specifically financial rewards have been discussed in this context. They are typically based on measured performance and have thus been the primary focus in much of the literature (Deci et al. 1999), specifically in the context of traditional manufacturing companies (Cordero et al. 2005). Furthermore, extrinsic motivation can be provided by the organisation relating to policies, procedures, services and programmes which can be implemented in different ways (Armstrong 2012).

Table 1 depicts the motivation factors as a matrix between the sources of motivation factors and level of its manifestation. This will be utilized as conceptual framework for our empirical investigations and guide the research method.

Table 1: Motivation factors arising from intrinsic and extrinsic as well as individual and collective factors(Adapted from Armstrong, (2012)).

	Intrinsic	Extrinsic
Individual	<ul style="list-style-type: none"> • Fulfilling work; • Use of abilities and skills; • Sense of achievement to give meaningfulness; • Autonomy in organising the activities. 	<ul style="list-style-type: none"> • Appreciation and recognition; • Monetary rewards such as base pay, bonus pay, special monetary rewards; • Verbal rewards; • Social rewards (liking, approval, status).
Collective	<ul style="list-style-type: none"> • Company perception; • Work environment and possibility to influence them. 	<ul style="list-style-type: none"> • Work-life balance in terms of flexibility, working hours and extra-time; • Colleagues; • Leadership in terms of supervisor contact • Learning and skill development.

Method

The research approach is based upon a case study which focuses on understanding the dynamics present within a single setting (Eisenhardt 1989). The case focused on a large manufacturing company within the European healthcare industry. The company had a tradition as a manufacturing company and sells services provided along their products. The case study focused on the service division which consisted of 50 employees. This division was sub-divided into five different areas: East, West, Diagnostics, Applications and Call-Center. These five areas were overseen by three service managers who were each responsible for approximately one third of the employees.

The data collection was done through a survey of the service employees in the five department areas. The survey was administered through an online questionnaire. The response rate was 76%. This high response rate was obtained by a close collaboration with the three managers in the division. An overview of the respondents can be seen in Table 2.

Table 2 shows an overview of the respondents for the data collection.

Areas within services	Total number of staff	Nº of survey respondents
East	10	10
West	17	15
Diagnostics	16	7
Applications	5	4
Call centre	2	2
Total	50	38 (76%)

The questionnaire was based on the conceptual framework investigating the areas depicted in Table 1. It consisted of nine different categories and within each category

there were between three and seven statements to underpin the category. The categories are listed in Table 3. For each statement, the respondents were asked to give the level of importance, i.e. how important the motivation factor was for the individual employee. Thus, in total there were 42 statements which are listed in the Appendix.

The results of the questionnaire were analyzed for reliability and validity. The reliability was done using Cronbach's alpha which can be used as a measure of internal consistency in a questionnaire to gauge its reliability (Reynaldo 1999). The results of the reliability test can be seen in Table 3.

Table 3 Category reliability values

Category	Cronbach's alpha
Company perception	0.87
Power distance	0.95
Cooperation	0.85
Colleagues	0.81
Rewards	0.98
Data vs. judgement	0.75
Explicit encouragement	0.75
Intrinsic encouragement	0.92
Work-life balance	0.74
Average Reliability	0.85

Findings

The findings are presented with regard to importance and agreeableness.

Importance

The service employees rated the different factors relevant for their motivation according to the importance they placed in them. Figure 1 depicts the results of this rating.

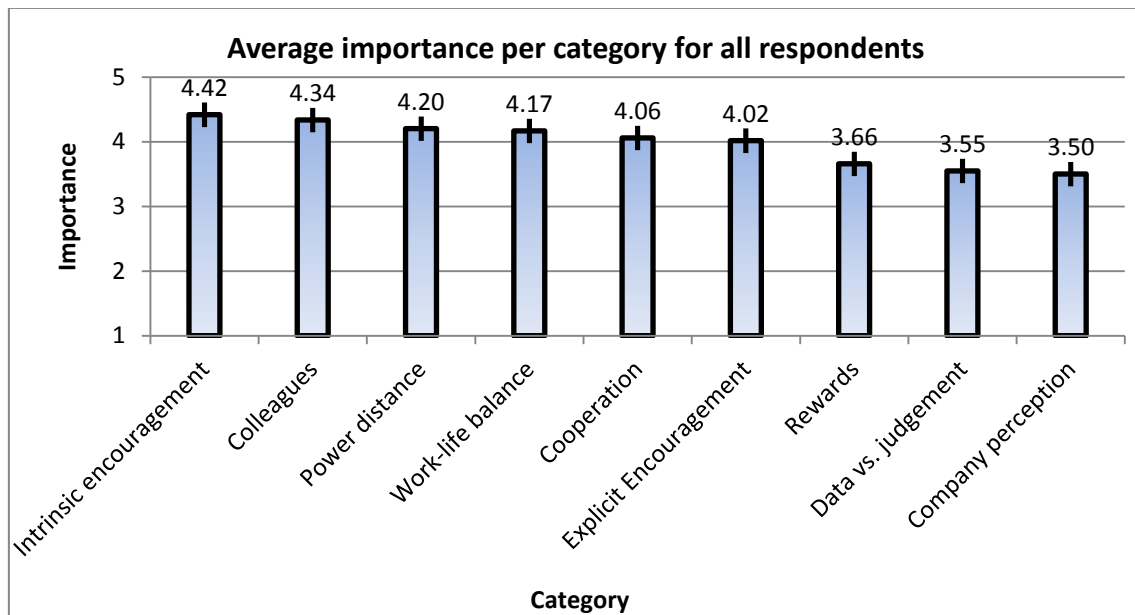


Figure 1 shows all the respondents rating of each category to importance

Figure 1 shows the high importance of intrinsic encouragement like satisfying the customer, responsibility, influence, flexibility, and factors like colleagues, relationship with the manager, work-life balance etc. all related to non-financial rewards clearly are the most important factors for people providing engineering services. Statements asking to monetary incentives and the reward system were found only the least important motivation factors.

Looking further into *intrinsic encouragement*, the respondents found making a difference for the customer to be one of the top motivators for their job. They also mentioned the importance of responsibility, influence, and another factor that almost every respondent mentioned, which was to have different working days so that no days are the same. Hereafter people also mentioned the importance of having opportunities to develop their skills and abilities.

The second highest ranked motivation factor was *colleagues*. This shows that people find it important to share their knowledge, be happy to ask for help, and that it is important that you get along well with the colleagues. This finding was supported by the case company's recent activities to encourage knowledge sharing amongst colleagues and creating an open work environment.

The importance of the relationship with the manager was included in *power distance* which scored the third highest. The results of the interviews show that encouragement, feedback, and recognition from their managers were quite important to them. People were frustrated if they were not appreciated and some people felt they needed more feedback, and recognition from their everyday work.

The results of the *work-life balance* highlighted that the respondents found their work-life balance, and flexibility to deal with private matters to be very important. This referred specifically to the flexibility of work life. It should also be mentioned that people in general found their work-life balance acceptable.

The last three categories with the lowest score to importance are *Rewards, Data vs. judgment, and company perception*. The low score in the Rewards category can be explained by the minor score to importance for monetary rewards as already seen. Since service is a profession that is hard to measure it can explain the low score in the category Data vs. Judgment.

Agreeableness

Figure 2 depicts the survey results regarding the level of agreeableness of the different motivation factors. One distinct finding was the difference regarding the two top ranked motivation factors when comparing the results of importance and agreeableness. *Intrinsic motivation* ranked most important while only ranking second in agreeableness. This suggests that the case company could improve their encouragement and incentives of intrinsic motivation. In comparison, *colleagues* ranked highest on agreeableness. This may be connected to the case company's recent activities to improve knowledge sharing amongst their service staff.

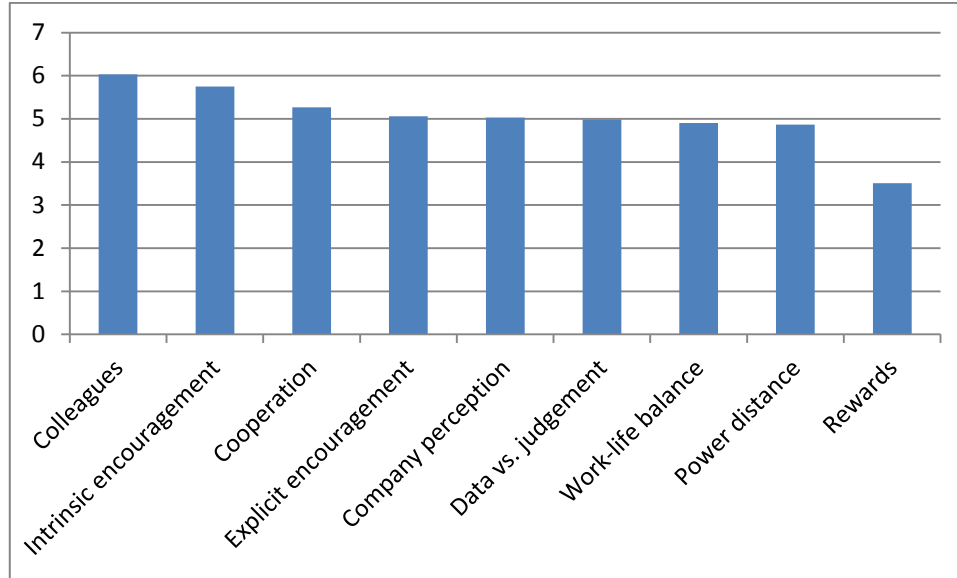


Figure 2: Survey results regarding agreeableness of the motivation factors

The following five motivation factors ranked relatively close, highlighting the case company's equal performance in supporting these motivation factors. *Rewards* were listed as least agreeable by the survey participants.

Discussion and Conclusions

The results clearly show that service employees find non-financial rewards more important than monetary rewards. One of the reasons why money is not so important could be, as the results show, that people in general find their salary acceptable and fair. Thus, it can be argued that people in this case study find their basic needs satisfied, and therefore the higher needs emerge and become the main motivator. These higher needs achieved by being engaged in meaningful work (Armstrong 2012). This was also seen in this case where people find their intrinsic motivation to be the most important factor. Due to this, it can be argued that what motivates people in knowledge-based work needs to be encouraged through non-financial rewards. This is also backed up by Markova and Ford (2011), who showed the importance of non-monetary rewards over monetary for knowledge workers' intrinsic motivation.

Based on the presented research, it can be concluded that there are several factors that motivate people providing engineering services. The most motivating factor is to make a difference for the customer, so that they are happy. People then feel proud of doing a good job, and the work becomes fulfilling and worthwhile. Furthermore, people providing engineering services are also very motivated by the responsibility, influence, and freedom they have over their work activities, mainly because it helps them to deal and arrange with private matters, thus making the work-life balance better, which is very important to them. And also the high degree of responsibility makes people feel appreciated and important, which again makes the work fulfilling and worthwhile. Moreover, the results show that people providing engineering services could not imagine doing repetitive jobs and feel that always having different days is highly motivating.

People providing engineering services are also motivated by the engagement with their colleagues, which is primarily because people tend to help each other a lot and share a lot of knowledge, which makes dealing with technical problems easier. Furthermore the work day also becomes more fun, and having good colleagues that can

stand in on a job if necessary, makes dealing with the work-life balance easier. Lastly, people providing engineering services also mention the proudness of being part of big company with a good reputation, and recognition from the managers and top managers when they have provided at good job at the customer side to be important. This again gives the feeling of making a difference which makes the job fulfilling and worthwhile.

The presented work contributes to the area of operations management in the field of service provision in relation to employee motivation, and the reward systems. The results shows that the reward system should focus on creating an organizational culture where service staff can realize themselves to facilitate intrinsic motivation e.g. making the customer happy, influence and responsibility over their work activities. In relation to this the importance of non-financial rewards over financial rewards, like recognition, flexibility, feedback etc. is also important for people providing service provision.

Appendix

In this appendix all the statements asked in the questionnaire and the score to importance can be seen. The values reflected the score of (1) – Not important to (5) Very important.

<i>Category</i>	<i>Importance</i>
Intrinsic encouragement	4,42
I find my work fulfilling and worthwhile	4,50
I feel that I am making best use of my abilities in my work	4,34
I feel that my work makes a difference to our customers	4,53
I have responsibility over my work and activities	4,37
I can decide freely about my work schedule without the need to ask my supervisor(s)	4,34
I have influence on my tasks and work routine	4,47
I can develop my professional skills in this company	4,37
Colleagues	4,34
I get along well with my colleagues and like spending time with them	4,32
I am happy asking colleagues for help in difficult situations	4,45
I freely share my experience and knowledge with my colleagues if they ask for my help	4,50
I am happy to engage in teamwork exercises with my colleagues and supervisors	4,08
Power distance	4,20
Managers in this organisation believe in face-to-face contact with engineers	4,03
I have sufficient authority to do my job well	4,26
My suggestions are taken seriously around here	4,32
Work-life balance	4,17
I am happy with my work-life balance	4,63
I have flexibility over my work schedule which allows me to deal with private matters when needed	4,47
I need to work a lot of extra hours and over time	3,61
My company has various programs to develop my skills	4,29
My organisation allows me to follow my career goals	4,13
I identify with my organisation's vision and values	3,87
Cooperation	4,06
Generally speaking, everyone in Customer services in Siemens Healthcare works well together	4,29
Our supervisors encourage the people who work for them to work as a team	4,03

We work as partners with other functions in Siemens Healthcare (project management, sales)	4,05
We believe that cooperative relationships will lead to better performance	4,13
We believe that an organisation should work as a partner with its surrounding community	3,79
Explicit encouragement	4,02
I feel encouraged through monetary incentives such as my salary and pay contribution	4,00
I feel encouraged through monetary incentives such as bonuses, pensions or other financial schemes	3,74
I feel encouraged through praise from colleagues	4,05
I feel encouraged through praise from my supervisor(s)	4,08
Regular feedback from our customers motivates me in trying to provide better services	4,21
Rewards	3,66
I feel encouraged to pursue company objectives by the existing reward system	3,61
The reward system in my organisation is fair at rewarding people who accomplish plant objectives	3,68
Our reward system really recognises the people who contribute the most to our company	3,68
Data vs. judgement	3,55
I believe the scientific method provides better input to decision making than intuition or opinion	3,45
In my view, organisations should use objective data as the basis for making decisions	3,55
In this organization, management is based on facts, not on intuition or tradition	3,39
This organisation has a strategic plan, which is put in writing	3,79
We make extensive use of statistical techniques to reduce variances in processes	3,55
Company perception	3,50
I talk about this organization to my friends as a great organization to work for	3,39
I am proud to tell others that I am part of this organisation	3,50
I am extremely glad I chose this organisation to work for, over others I was considering at the time I joined	3,45
For me, this is the best of all organisations for which to work	3,66

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